

WHAT IS CLAIMED IS:

1. A cooling device that blows a cooling air to a heated object to be cooled,
comprising: a fan body having a vane supported by a rotary shaft of a rotary drive source;
5 and a chassis that houses the fan body,
the chassis being made of a heat-conductive material and having a heat radiator
that radiates a heat generated on the object to be cooled to an outside by heat-conduction.
2. The cooling device according to claim 1,
10 wherein the chassis is made of metal.
3. The cooling device according to claim 1,
wherein a contact surface to be in contact with the object to be cooled is formed
on the chassis.
- 15 4. An optical device, comprising: a plurality of optical modulators that respectively
modulate each of a plurality of color lights in accordance with image information; a
color-combining optical system having a plurality of light-incident sides opposing to the
optical modulators, the color-combining optical system combining the color lights
20 modulated by the optical modulators; a plurality of optical converters respectively disposed
between the optical modulators and the light-incident sides; and a cooling device that
blows a cooling air to an object to be cooled, the cooling device including a fan body
having a vane supported by a rotary shaft of a rotary drive source and a chassis that houses
the fan body, the chassis being made of a heat-conductive material and having a heat
25 radiator that radiates the heat generated on the object to be cooled to an outside by
heat-conduction,
wherein a heat-conductive plate that opposes to the light-irradiation side and
conducts the heat generated on the optical modulator and/or the optical converter is
provided on the light-incident side of the color-combining optical system,

wherein the heat-conductive plate is abutted to the heat-radiator of the chassis of the cooling device.

5. The optical device according to claim 4,
5 wherein the chassis is made of metal.
6. The optical device according to claim 4,
 wherein a contact surface to be in contact with the object to be cooled is formed
 on the chassis.
- 10 7. The optical device according to claim 4,
 wherein the heat-conductive plate is made of sapphire glass or quartz crystal.
8. The optical device according to claim 4,
15 wherein a base that supports the color-combining optical system is formed on the
 chassis of the cooling device at a position corresponding to the rotary shaft of the rotary
 drive source.
9. The optical device according to claim 8,
20 wherein a bulging portion that adjusts the attitude of the color-combining optical
 system relative to the chassis is formed on a surface of the base on which the
 color-combining optical system is supported.
10. The optical device according to claim 4,
25 wherein the chassis has a projection lens attachment that extends in an air-blow
 direction of the cooling device on which a projection lens that enlarges and projects the
 light beam irradiated by the color-combining optical system is attached.
11. A projector, comprising: a light source; an optical modulator that modulates a

light beam irradiated by the light source in accordance with image information to form an optical image; a projection optical system that enlarges and projects the optical image formed by the optical modulator; and

- 5 a cooling device that blows a cooling air to a heated object to be cooled, the cooling device including a fan body that has a vane supported by a rotary shaft of a rotary drive source and a chassis that houses the fan body, wherein the chassis is made of a heat-conductive material and has a heat radiator that radiates a heat generated on the object to be cooled to an outside by heat conduction.

10 12. The projector according to claim 11,
wherein the chassis is made of metal.

13. The projector according to claim 11,
15 wherein a contact surface to be in contact with the object to be cooled is formed on the chassis.

14. The projector according to claim 11, further comprising:
an exterior casing that houses an optical system including the light source and the optical modulator,
20 wherein an intake opening that draws in an outside air is formed on the exterior casing,
wherein the cooling device is located remote from the intake opening, and
wherein a sirocco fan that draws in an air by a rotation thereof and discharge the air in a rotary tangential direction thereof to guide the air toward the cooling device is
25 provided on the intake opening.